

Agriculture and Food Industry Alliance

Processing



VR training system

Challenges

The companies involved in food processing face numerous challenges. The focus is particularly on a wide range of issues relating to resource conservation and holistic process engineering.

The Fraunhofer Agriculture and Food Industry Alliance is working on solutions for the following topics:

- Processing of **novel foods** from insects, fungi, and algae – also known as “new food”
- **CO₂ neutrality** in food production and processing
- **Legal requirements** for the use of recycled materials and recyclability of plastic packaging
- Shortage of skilled workers in the production sector and the associated **loss of knowledge and experience** (impact: reduction in OEE – Overall Equipment Effectiveness)

Customer Benefits

- **Consulting** and selection of suitable technologies and solutions
- **Customized solutions** for companies of all sizes
- **Know-how** from expertise and digitalization
- **Reduction** of operating costs through process optimization
- **Implementation** of sustainability and zero-emission concepts
- **One-stop shop**: from concept to prototypes
- Bundling of **competencies** as part of the Fraunhofer network
- Unique **scientific infrastructure**
- **Contacts** to policymakers, associations, and government resource institutions



Efficient packaging processes

Solutions

For solutions, the Fraunhofer Agriculture and Food Industry Alliance can draw on the diverse competencies of its member institutes:

- **Optical process and product monitoring**
- **Evaluation** of the operating behavior according to DIN-EN 415-11:2021-12
- **Efficient processing methods**: welding/sealing, thermoforming, cutting
- **Packaging materials**: design of (recyclable) plastic packaging (also from recycled materials)
- Innovative **cleaning systems** and **contamination sensors**
- **Production**: energy and mass balancing, physical/chemical analytics, process optimization
- **Food production**: innovative technologies (decomposition, extraction, concentration, drying)
- **Digital assistance systems** and virtual reality (VR) **training systems**



Contact Agriculture and Food Industry Alliance

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